

## TABLE OF CONTENTS

### **CHAPTER 1 - FAR 21 CERTIFICATION PROCEDURES FOR PRODUCTS AND PARTS**

		Page No.
AC 21.16	Special Conditions .....	FAR 21-1
AC 21.31	Type Design .....	FAR 21-2
AC 21.33	Inspection and Tests.....	FAR 21-2
AC 21.35	Flight Tests.....	FAR 21-2
AC 21.39	Flight Test Instrument Calibration .....	FAR 21-6
	and Correction Report	

### **CHAPTER 2 - FAR 29 AIRWORTHINESS STANDARDS: NORMAL CATEGORY ROTORCRAFT**

#### **SUBPART A - GENERAL**

##### **GENERAL**

AC 29.1	Applicability.....	A-1
AC 29.1A	Applicability.....	A-2
AC 29.2	Special Retroactive Requirements .....	A-3

#### **SUBPART B - FLIGHT**

##### **GENERAL**

AC 29.21	Proof of Compliance .....	B-1
AC 29.21A	Proof of Compliance .....	B-3
AC 29.25	Weight Limits.....	B-3
AC 29.27	Center of Gravity Limits .....	B-4
AC 29.29	Empty Weight and Corresponding Center of Gravity .....	B-6
AC 29.31	Removable Ballast.....	B-7
AC 29.33	Main Rotor Speed and Pitch Limits .....	B-7

##### **PERFORMANCE**

AC 29.45	Performance - General .....	B-10
AC 29.45A	Performance - General .....	B-20
AC 29.45B	Performance - General .....	B-20
AC 29.49	Performance at Minimum Operating Speed. Hover Performance .....	B-27
	for Rotorcraft	
AC 29.51	Takeoff Data - General .....	B-29
AC 29.51A	Takeoff Data - General .....	B-30
AC 29.53	Takeoff: Category A.....	B-31
AC 29.53A	Takeoff: Category A.....	B-34

**SUBPART B - FLIGHT (continued)****PERFORMANCE (continued)**

	Page No.	
AC 29.55	Takeoff Decision Point: Category A.....	B-36
AC 29.59	Takeoff Path: Category A.....	B-36
AC 29.59A	Takeoff Path, Distance and Rejected Takeoff; Ground Level and Elevated Heliport: Category A	B-46
AC 29.63	Takeoff: Category B .....	B-56
AC 29.65	Climb: (All Engines Operating) .....	B-59
AC 29.65A	Climb: (General and All Engines Operating).....	B-60
AC 29.67	Climb: One Engine Inoperative.....	B-62
AC 29.67A	Climb: One Engine Inoperative.....	B-64
AC 29.71	Rotorcraft Angle of Glide: Category B .....	B-65
AC 29.73	Performance at Minimum Operating Speed .....	B-68
AC 29.75	Landing .....	B-70
AC 29.75A	Landing .....	B-79
AC 29.77	Balked Landing: Category A.....	B-89
AC 29.79	Limiting Height - Speed Envelope .....	B-90
AC 29.85	Balked Landing: Category A.....	B-98
AC 29.87	Limiting Height - Speed Envelope .....	B-99

**FLIGHT CHARACTERISTICS**

AC 29.141	Flight Characteristics - General.....	B-100
AC 29.143	Controllability and Maneuverability .....	B-101
AC 29.151	Flight Controls .....	B-106
AC 29.161	Trim Control .....	B-107
AC 29.161A	Trim Control .....	B-108
AC 29.171	Stability: General.....	B-108
AC 29.173	Static Longitudinal Stability.....	B-109
AC 29.175	Demonstration of Static Longitudinal Stability.....	B-110
AC 29.177	Static Directional Stability .....	B-114
AC 29.181	Dynamic Stability: Category A Rotorcraft .....	B-115

**GROUND AND WATER HANDLING CHARACTERISTICS**

AC 29.231	General (Ground and Water Handling Characteristics) .....	B-116
AC 29.235	Taxiing Condition .....	B-116
AC 29.239	Spray Characteristics .....	B-117
AC 29.241	Ground Resonance .....	B-118

**MISCELLANEOUS FLIGHT REQUIREMENTS**

AC 29.251	Vibration.....	B-123
-----------	----------------	-------

**SUBPART C - STRENGTH REQUIREMENTS**

Page No.

**GENERAL**

AC 29.301	Loads.....	C-1
AC 29.303	Factor of Safety .....	C-1
AC 29.305	Strength and Deformation.....	C-2
AC 29.307	Proof of Structure .....	C-2
AC 29.307A	Proof of Structure .....	C-3
AC 29.309	Design Limitations .....	C-4

**FLIGHT LOADS**

AC 29.321	General - Flight Loads .....	C-5
AC 29.337	Limit Maneuvering Load Factor.....	C-5
AC 29.339	Resultant Limit Maneuvering Loads.....	C-8
AC 29.341	Gust Loads .....	C-8
AC 29.351	Yawing Conditions .....	C-10
AC 29.351A	Yawing Conditions .....	C-13
AC 29.351B	Yawing Conditions .....	C-15
AC 29.361	Engine Torque .....	C-15

**CONTROL SURFACE AND SYSTEM LOADS**

AC 29.391	Control Surface and System Loads - General.....	C-17
AC 29.391A	Control Surface and System Loads - General.....	C-17
AC 29.395	Control System .....	C-17
AC 29.395A	Control System .....	C-19
AC 29.397	Limit Pilot Forces and Torques .....	C-19
AC 29.399	Dual Control System.....	C-20
AC 29.401	Auxiliary Rotor Assemblies .....	C-20
AC 29.401A	Auxiliary Rotor Assemblies .....	C-21
AC 29.403	Auxiliary Rotor Attachment Structure .....	C-22
AC 29.403A	Auxiliary Rotor Attachment Structure .....	C-22
AC 29.411	Ground Clearance: Tail Rotor Guard .....	C-23
AC 29.413	Stabilizing and Control Surfaces.....	C-24
AC 29.413A	Stabilizing and Control Surfaces.....	C-26
AC 29.427	Unsymmetrical Loads .....	C-26

**GROUND LOADS**

AC 29.471	Ground Loads - General.....	C-30
AC 29.473	Ground Loading Conditions and Assumptions .....	C-30
AC 29.475	Tires and Shock Absorbers .....	C-31
AC 29.477	Landing Gear Arrangement .....	C-31
AC 29.479	Level Landing Conditions.....	C-31

**SUBPART C - STRENGTH REQUIREMENTS( continued)****GROUND LOADS (continued)**

	Page No.
AC 29.481 Tail-Down Landing Conditions.....	C-33
AC 29.483 One-Wheel Landing Conditions .....	C-33
AC 29.485 Lateral Drift Landing Conditions .....	C-33
AC 29.493 Braked Roll Conditions.....	C-34
AC 29.497 Ground Loading Conditions:.....	C-34
Landing Gear With Tail Wheels	
AC 29.501 Ground Loading Conditions:.....	C-36
Landing Gear With Skids	
AC 29.501A Ground Loading Conditions:.....	C-37
Landing Gear With Skids	
AC 29.505 Ski Landing Conditions.....	C-38
AC 29.511 Ground Load: Unsymmetrical Loads on Multiple-Wheel Units.....	C-38

**WATER LOADS**

AC 29.519 Hull Type Rotorcraft: Water-Based, Amphibian.....	C-40
AC 29.521 Float Landing Conditions.....	C-42

**MAIN COMPONENT REQUIREMENTS**

AC 29.547 Main Rotor Structure .....	C-43
AC 29.547A Main Rotor and Tail Rotor Structure.....	C-43
AC 29.549 Fuselage and Rotor Pylon.....	C-46
AC 29.551 Auxiliary Lifting Surfaces .....	C-47

**EMERGENCY LANDING CONDITIONS**

AC 29.561 Emergency Landing Conditions - General.....	C-48
AC 29.561A Emergency Landing Conditions - General.....	C-50
AC 29.561B Emergency Landing Conditions - General.....	C-51
AC 29.562 Emergency Landing Dynamic Conditions .....	C-52
AC 29.563 Structural Ditching Provisions.....	C-52
AC 29.563A Structural Ditching Provisions.....	C-52

**FATIGUE EVALUATION**

AC 29.571 Fatigue Evaluation of Flight Structure .....	C-55
AC 29.571A Fatigue Evaluation of Flight Structure .....	C-57

**SUBPART D - DESIGN AND CONSTRUCTION****GENERAL**

Page No.

AC 29.601	Design .....	D-1
AC 29.602	Critical Parts .....	D-2
AC 29.603	Materials .....	D-3
AC 29.605	Fabrication Methods .....	D-4
AC 29.607	Fasteners .....	D-5
AC 29.609	Protection of Structure .....	D-5
AC 29.610	Lightning and Static Electricity Protection .....	D-6
AC 29.611	Inspection Provisions .....	D-12
AC 29.613	Material Strength Properties and Design Values .....	D-13
AC 29.613A	Material Strength Properties and Design Values .....	D-15
AC 29.619	Special Factors .....	D-16
AC 29.621	Casting Factors .....	D-16
AC 29.623	Bearing Factors .....	D-26
AC 29.625	Fitting Factors .....	D-27
AC 29.629	Flutter .....	D-28
AC 29.629A	Flutter and Divergence .....	D-28
AC 29.631	Bird Strike .....	D-29

**ROTORS**

AC 29.653	Pressure Venting and Drainage of Rotor Blades .....	D-31
AC 29.659	Mass Balance .....	D-31
AC 29.661	Rotor Blade Clearance .....	D-31
AC 29.663	Ground Resonance Prevention Means .....	D-33
AC 29.663A	Ground Resonance Prevention Means .....	D-35

**CONTROL SYSTEMS**

AC 29.671	Control Systems - General.....	D-36
AC 29.672	Stability Augmentation, Automatic, and Power-Operated Systems	D-36
AC 29.673	Primary Flight Controls .....	D-37
AC 29.674	Interconnected Controls.....	D-38
AC 29.675	Stops .....	D-38
AC 29.679	Control System Locks.....	D-39
AC 29.681	Limit Load Static Tests .....	D-40
AC 29.683	Operation Tests .....	D-41
AC 29.685	Control System Details .....	D-42
AC 29.687	Spring Devices .....	D-43
AC 29.691	Autorotation Control Mechanism.....	D-44
AC 29.695	Power Boost and Power-Operated Control System .....	D-45

**SUBPART D - DESIGN AND CONSTRUCTION (continued)**

	Page No.
<b><u>LANDING GEAR</u></b>	
AC 29.723	Shock Absorption Tests .....
AC 29.725	Limit Drop Test.....
AC 29.727	Reserve Energy Absorption Drop Test .....
AC 29.727A	Reserve Energy Absorption Drop Test .....
AC 29.729	Retracting Mechanism, Landing Gear .....
AC 29.731	Wheels.....
AC 29.733	Tires.....
AC 29.735	Brakes.....
AC 29.737	Skis .....
<b><u>FLOATS AND HULLS</u></b>	
AC 29.751	Main Float Buoyancy .....
AC 29.753	Main Float Design .....
AC 29.755	Hull Buoyancy .....
AC 29.757	Hull and Auxiliary Float Strength .....
<b><u>PERSONNEL AND CARGO ACCOMMODATIONS</u></b>	
AC 29.771	Pilot Compartment .....
AC 29.773	Pilot Compartment View.....
AC 29.775	Windshields and Windows .....
AC 29.775A	Windshields and Windows .....
AC 29.775B	Windshields and Windows .....
AC 29.777	Cockpit Controls.....
AC 29.779	Motion and Effect of Cockpit Controls .....
AC 29.783	Doors .....
AC 29.783A	Doors .....
AC 29.785	Seats, Safety Belts, and Harnesses .....
AC 29.785A	Seats, Berths, Belts, Safety Belts, and Harnesses .....
AC 29.787	Cargo and Baggage Compartments.....
AC 29.787A	Cargo and Baggage Compartments.....
AC 29.801	Ditching .....
AC 29.803	Emergency Evacuation .....
AC 29.803A	Emergency Evacuation .....
AC 29.805	Flightcrew Emergency Exits .....
AC 29.805A	Flightcrew Emergency Exits .....
AC 29.807	Passenger Emergency Exits .....
AC 29.807A	Emergency Exits .....
AC 29.809	Emergency Exit Arrangement.....
AC 29.809A	Emergency Exit Arrangement.....
AC 29.811	Emergency Exit Marking .....
AC 29.811A	Emergency Exit Marking .....

**SUBPART D - DESIGN AND CONSTRUCTION (continued)**

Page No.

**PERSONNEL AND CARGO ACCOMMODATIONS( continued)**

AC 29.812	Emergency Lighting .....	D-104
AC 29.813	Emergency Exit Access .....	D-104
AC 29.815	Main Aisle Width .....	D-106
AC 29.831	Ventilation.....	D-107
AC 29.833	Heaters .....	D-108

**FIRE PROTECTION**

AC 29.851	Fire Extinguishers .....	D-110
AC 29.853	Compartment Interiors .....	D-111
AC 29.855	Cargo and Baggage Compartments .....	D-113
AC 29.855A	Cargo and Baggage Compartments .....	D-115
AC 29.859	Combustion Heater Fire Protection.....	D-115
AC 29.861	Fire Protection of Structure, Controls, and Other Parts.....	D-119
AC 29.861A	Fire Protection of Structure, Controls, and Other Parts.....	D-122
AC 29.863	Flammable Fluid Fire Protection .....	D-122

**EXTERNAL LOAD ATTACHING MEANS**

AC 29.865	External Load Attaching Means .....	D-127
AC 29.865A	External Load Attaching Means .....	D-132
AC 29.865B	External Load Attaching Means (SEE MG 12) .....	D-138

**MISCELLANEOUS (DESIGN AND CONSTRUCTION)**

AC 29.871	Leveling Marks .....	D-139
AC 29.873	Ballast Provisions .....	D-139
AC 29.877	Ice Protection.....	D-140

**SUBPART E - POWERPLANT****GENERAL**

AC 29.901	Installation .....	E-1
AC 29.901A	Installation .....	E-8
AC 29.901B	Installation .....	E-8
AC 29.903	Engines .....	E-9
AC 29.903A	Engines .....	E-11
AC 29.903B	Engines .....	E-13
AC 29.903C	Turbine Engine Installation .....	E-13
AC 29.907	Engine Vibration .....	E-29

**SUBPART E - POWERPLANT (continued)**

Page No.

**GENERAL (continued)**

AC 29.908	Cooling Fans .....	E-29
AC 29.908A	Cooling Fans .....	E-30

**ROTOR DRIVE SYSTEM**

AC 29.917	Design.....	E-33
AC 29.917A	Design.....	E-34
AC 29.921	Rotor Brake .....	E-37
AC 29.923	Rotor Drive System and Control Mechanism Tests .....	E-39
AC 29.923A	Rotor Drive System and Control Mechanism Tests .....	E-45
AC 29.923B	Rotor Drive System and Control Mechanism Tests .....	E-52
AC 29.923C	Rotor Drive System and Control Mechanism Tests .....	E-53
AC 29.927	Additional Tests.....	E-54
AC 29.927A	Additional Tests.....	E-56
AC 29.931	Shafting Critical Speeds .....	E-58
AC 29.935	Shafting Joints .....	E-63
AC 29.939	Turbine Engine Operating Characteristics.....	E-63

**FUEL SYSTEM**

AC 29.951	Fuel System - General .....	E-66
AC 29.952	Fuel System Crash Resistance .....	E-68
AC 29.953	Fuel System Independence .....	E-93
AC 29.954	Fuel System Lightning Protection .....	E-94
AC 29.955	Fuel Flow.....	E-95
AC 29.955A	Fuel Flow.....	E-99
AC 29.957	Flow Between Interconnected Tanks.....	E-103
AC 29.959	Unusable Fuel Supply .....	E-103
AC 29.961	Fuel System Hot Weather Operation.....	E-104
AC 29.961A	Fuel System Hot Weather Operation.....	E-106
AC 29.963	Fuel Tanks: General.....	E-107
AC 29.963A	Fuel Tanks: General.....	E-107
AC 29.963B	Fuel Tanks: General.....	E-108
AC 29.965	Fuel Tank Tests .....	E-109
AC 29.967	Fuel Tank Installation .....	E-111
AC 29.967A	Fuel Tank Installation .....	E-113
AC 29.969	Fuel Tank Expansion Space.....	E-113
AC 29.969A	Fuel Tank Expansion Space.....	E-114
AC 29.971	Fuel Tank Sump.....	E-114
AC 29.971A	Fuel Tank Sump.....	E-116
AC 29.973	Fuel Tank Filler Connection.....	E-116
AC 29.973A	Fuel Tank Filler Connection.....	E-117

**SUBPART E - POWERPLANT (continued)**

Page No.

**FUEL SYSTEM (continued)**

AC 29.975	Fuel Tank Vents and Carburetor Vapor Vents .....	E-118
AC 29.975A	Fuel Tank Vents and Carburetor Vapor Vents .....	E-119
AC 29.975B	Fuel Tank Vents and Carburetor Vapor Vents .....	E-119
AC 29.977	Fuel Tank Outlet.....	E-120
AC 29.979	Pressure Refueling and Fueling Provisions Below Fuel Level.....	E-121

**FUEL SYSTEM COMPONENTS**

AC 29.991	Fuel Pumps .....	E-123
AC 29.991A	Fuel Pumps .....	E-124
AC 29.993	Fuel System Lines and Fittings.....	E-124
AC 29.995	Fuel Valves.....	E-125
AC 29.997	Fuel Strainer or Filter .....	E-125
AC 29.997A	Fuel Strainer or Filter .....	E-126
AC 29.999	Fuel System Drains .....	E-127
AC 29.999A	Fuel System Drains .....	E-127
AC 29.1001	Fuel Jettisoning .....	E-128

**OIL SYSTEM**

AC 29.1011	Oil System - General .....	E-130
AC 29.1013	Oil Tanks .....	E-131
AC 29.1015	Oil Tank Tests .....	E-131
AC 29.1017	Oil Lines and Fittings .....	E-132
AC 29.1019	Oil Strainer or Filter.....	E-132
AC 29.1019A	Oil Strainer or Filter.....	E-133
AC 29.1021	Oil System Drains .....	E-134
AC 29.1023	Oil Radiators.....	E-134
AC 29.1025	Oil Valves .....	E-134
AC 29.1027	Transmission and Gearboxes: General .....	E-135

**COOLING**

AC 29.1041	Cooling - General .....	E-137
AC 29.1043	Cooling Tests.....	E-140
AC 29.1043A	Cooling Tests.....	E-142
AC 29.1045	Cooling Test Procedures .....	E-143
AC 29.1047	Takeoff Cooling Test Procedures .....	E-147
AC 29.1049	Hovering Cooling Test Procedures .....	E-149

**SUBPART E - POWERPLANT (continued)**

Page No.

**INDUCTION SYSTEM**

AC 29.1091	Air Induction .....	E-151
AC 29.1093	Induction System Icing Protection .....	E-152
AC 29.1093A	Induction System Icing Protection .....	E-161
AC 29.1101	Carburetor Air Preheater Design.....	E-162
AC 29.1103	Induction System Ducts and Air Duct Systems.....	E-162
AC 29.1105	Induction System Screens.....	E-164
AC 29.1107	Intercoolers and After-Coolers .....	E-165
AC 29.1109	Carburetor Air Cooling.....	E-165

**EXHAUST SYSTEM**

AC 29.1121	General .....	E-166
AC 29.1123	Exhaust Piping .....	E-167
AC 29.1125	Exhaust Heat Exchangers.....	E-169

**POWERPLANT CONTROLS AND ACCESSORIES**

AC 29.1141	Powerplant Controls: General .....	E-173
AC 29.1142	Auxiliary Power Unit Controls .....	E-174
AC 29.1143	Engine Controls.....	E-175
AC 29.1143A	Engine Controls.....	E-176
AC 29.1143B	Engine Controls.....	E-176
AC 29.1145	Ignition Switches .....	E-176
AC 29.1147	Mixture Controls .....	E-177
AC 29.1151	Rotor Brake Controls.....	E-178
AC 29.1157	Carburetor Air Temperature Controls .....	E-179
AC 29.1159	Supercharger Controls .....	E-179
AC 29.1163	Powerplant Accessories .....	E-180
AC 29.1165	Engine Ignition Systems.....	E-181

**POWERPLANT FIRE PROTECTION**

AC 29.1181	Designated Fire Zones: Regions Included.....	E-182
AC 29.1183	Lines, Fittings, and Components .....	E-183
AC 29.1185	Flammable Fluids .....	E-184
AC 29.1187	Drainage and Ventilation of Fire Zones .....	E-186
AC 29.1189	Shutoff Means .....	E-186
AC 29.1191	Firewalls .....	E-187
AC 29.1193	Cowling and Engine Compartment Covering.....	E-191
AC 29.1193A	Cowling and Engine Compartment Covering.....	E-192
AC 29.1194	Other Surfaces .....	E-193
AC 29.1195	Fire Extinguishing Systems .....	E-194
AC 29.1197	Fire Extinguishing Agents.....	E-197

**SUBPART E - POWERPLANT (continued)**

Page No.

**POWERPLANT FIRE PROTECTION (continued)**

AC 29.1199	Extinguishing Agent Containers .....	E-200
AC 29.1201	Fire Extinguishing System Materials .....	E-201
AC 29.1203	Fire Detector Systems .....	E-201

**SUBPART F - EQUIPMENT****GENERAL**

AC 29.1301	Function and Installation .....	F-1
AC 29.1303	Flight and Navigation Instruments .....	F-1
AC 29.1305	Powerplant Instruments .....	F-5
AC 29.1305A	Powerplant Instruments .....	F-6
AC 29.1305B	Powerplant Instruments .....	F-7
AC 29.1305C	Powerplant Instruments .....	F-10
AC 29.1307	Miscellaneous Equipment .....	F-10
AC 29.1309	Equipment, Systems, and Installations .....	F-11

**INSTRUMENTS - INSTALLATION**

AC 29.1321	Arrangement and Visibility .....	F-32
AC 29.1322	Warning, Caution, and Advisory Lights .....	F-33
AC 29.1323	Airspeed Indicating System .....	F-37
AC 29.1323A	Airspeed Indicating System .....	F-38
AC 29.1325	Static Pressure Systems .....	F-39
AC 29.1327	Magnetic Direction Indicator .....	F-40
AC 29.1329	Automatic Pilot Systems .....	F-40
AC 29.1331	Instruments Using a Power Supply .....	F-49
AC 29.1333	Instrument Systems .....	F-50
AC 29.1335	Flight Director Systems .....	F-50
AC 29.1337	Powerplant Instruments - Fuel Gauge Calibration .....	F-51
AC 29.1337A	Powerplant Instruments .....	F-53

**ELECTRICAL SYSTEMS AND EQUIPMENT**

AC 29.1351	Electrical Systems and Equipment - General .....	F-54
AC 29.1353	Electrical Equipment and Installations .....	F-62
AC 29.1355	Distribution System .....	F-63
AC 29.1355A	Distribution System .....	F-64
AC 29.1357	Circuit Protective Devices .....	F-64
AC 29.1357A	Circuit Protective Devices .....	F-66
AC 29.1359	Electrical System Fire and Smoke Protection .....	F-66
AC 29.1363	Electrical Systems Tests .....	F-68

**SUBPART F - EQUIPMENT (continued)**

Page No.

**LIGHTS**

AC 29.1381	Instrument Lights.....	F-69
AC 29.1383	Landing Lights.....	F-70
AC 29.1385	Position Light System Installation.....	F-70
AC 29.1387	Position Light System Dihedral Angles .....	F-70
AC 29.1389	Position Light Distribution and Intensities .....	F-70
AC 29.1391	Minimum Intensities in the Horizontal .....	F-70
	Plane of Forward and Rear Position Light	
AC 29.1393	Minimum Intensities in Any Vertical .....	F-70
	Plane of Forward and Rear Position Lights	
AC 29.1395	Maximum Intensities In Overlapping.....	F-70
	Beams of Forward and Rear Position Lights	
AC 29.1397	Color Specifications.....	F-70
AC 29.1399	Riding Light.....	F-71
AC 29.1401	Anticollision Light System.....	F-72

**SAFETY EQUIPMENT**

AC 29.1411	Safety Equipment - General .....	F-73
AC 29.1413	Safety Belts: Passenger Warning Device.....	F-75
AC 29.1415	Ditching Equipment .....	F-76
AC 29.1419	Ice Protection .....	F-77

**MISCELLANEOUS EQUIPMENT**

AC 29.1431	Electronic Equipment .....	F-96
AC 29.1433	Vacuum Systems .....	F-96
AC 29.1435	Hydraulic Systems.....	F-97
AC 29.1439	Protective Breathing Equipment.....	F-100
AC 29.1457	Cockpit Voice Recorder.....	F-101
AC 29.1459	Flight Recorders.....	F-102
AC 29.1461	Equipment Containing High Energy Rotors .....	F-105

**SUBPART G - OPERATING LIMITATIONS AND INFORMATION****OPERATING LIMITATIONS**

AC 29.1501	Operating Limitations - General.....	G-1
AC 29.1503	Airspeed Limitations: General .....	G-1
AC 29.1505	Never-Exceed Speed .....	G-3
AC 29.1509	Rotor Speed .....	G-6
AC 29.1517	Limiting Height-Speed Envelope .....	G-8
AC 29.1519	Weight and Center of Gravity .....	G-9

**SUBPART G - OPERATING LIMITATIONS AND INFORMATION (continued)**

Page No.

**OPERATING LIMITATIONS (continued)**

AC 29.1521	Powerplant Limitations.....	G-9
AC 29.1521A	Powerplant Limitations.....	G-10
AC 29.1521B	Powerplant Limitations.....	G-11
AC 29.1522	Auxiliary Power Unit Limitations .....	G-11
AC 29.1523	Minimum Flightcrew.....	G-12
AC 29.1525	Kinds of Operations .....	G-16
AC 29.1527	Maximum Operating Altitude.....	G-16
AC 29.1529	Instructions for Continued Airworthiness..... (Maintenance Manual)	G-17
AC 29.1529A	Instructions for Continued Airworthiness..... (Maintenance Manual)	G-20

**MARKINGS AND PLACARDS**

AC 29.1541	Marking and Placards - General .....	G-21
AC 29.1543	Instrument Markings: General.....	G-21
AC 29.1545	Airspeed Indicator.....	G-25
AC 29.1547	Magnetic Direction Indicator .....	G-25
AC 29.1549	Powerplant Instruments .....	G-25
AC 29.1551	Oil Quantity Indicators .....	G-26
AC 29.1553	Fuel Quantity Indicator.....	G-26
AC 29.1555	Control Markings .....	G-27
AC 29.1557	Miscellaneous Markings and Placards .....	G-28
AC 29.1559	Limitations Placard .....	G-29
AC 29.1561	Safety Equipment .....	G-30
AC 29.1565	Tail Rotor.....	G-31

**ROTORCRAFT FLIGHT MANUAL**

AC 29.1581	Rotorcraft Flight Manual - General.....	G-32
AC 29.1583	Operating Limitations.....	G-40
AC 29.1583A	Operating Limitations.....	G-43
AC 29.1585	Operating Procedures.....	G-43
AC 29.1587	Performance Information .....	G-45
AC 29.1587A	Performance Information .....	G-48
AC 29.1589	Loading Information.....	G-49

**CHAPTER 3 - MISCELLANEOUS GUIDANCE (MG), NORMAL CATEGORY ROTORCRAFT**

AC 29 MG 1	Certification Procedure for Rotorcraft Avionics Equipment .....	MG 1-1
AC 29 MG 2	Standardized Test Procedure for Rotorcraft DC ..... Electrical System Tests	MG 2-1
AC 29 MG 3	Rotorcraft and Systems Certification for Category II Operations .....	MG 3-1
AC 29 MG 4	Full Authority Digital Electronic Controls (FADEC) .....	MG 4-1
AC 29 MG 5	Agricultural Dispensing Equipment Installation.....	MG 5-1
AC 29 MG 6	Emergency Medical Service (EMS) Systems, Installations,..... Interior Arrangements, and Equipment	MG 6-1
AC 29 MG 7	Structural Condition Indicators .....	MG 7-1
AC 29 MG 8	Substantiation of Composite Rotorcraft Structure .....	MG 8-1
AC 29 MG 9	Rotorcraft One-Engine-Inoperative (OEI) Power Assurance .....	MG 9-1
AC 29 MG 10	Advisory Material for Substantiation of Emergency .....	MG 10-1 Flotation System
AC 29 MG 11	Fatigue Evaluation of Transport Category Rotorcraft Structure..... (Including Flaw Tolerance)	MG 11-1
AC 29 MG 12	External Loads .....	MG 12-1
AC 29 Appendix A	- (reserved) ( <i>Instructions for Continued Airworthiness</i> ) .....	Apdx A-1
AC 29 Appendix B	- Airworthiness Guidance for Rotorcraft Instrument Flight.....	Apdx B-1
AC 29 Appendix C	- (reserved) ( <i>Icing Certification</i> ).....	Apdx C-1
AC 29 Appendix D	- (reserved) ( <i>Criteria for Demonstration of Emergency</i> .....	Apdx D-1 <i>Evacuation Procedures Under § 29.803</i> )